

AMENDMENTS TO THE CLAIMS**Claim 1 (cancelled)**

Claim 2 (currently amended): The method according to claim ~~[[1]]~~ 19, wherein polyolefin is the product of the copolymerisation of olefinic monomers selected from ethylene, propylene, 1-butene, 1-pentene, 1-hexene, 4-methyl-1-pentene, 3-methyl-1-pentene, 3,3-dimethyl-1-butene, 3-methyl-1-hexene, and 2,4,4 trimethyle-1-pentene.

Claim 3 (currently amended): The method according to claim ~~[[1]]~~ 19, wherein the part to which fillers are not added contains between 10 and 90% of polyolefin and between 90 and 10% of a EPDM terpolymer.

Claim 4 (previously presented): The method according to claim 2, wherein the EPDM terpolymer consists of at least two olefinic monomers and one dienic monomer conjugated or not conjugated in the main polymeric chain.

Claim 5 (cancelled)

Claim 6 (previously presented): The method according to claim 3, wherein the dienic monomer is selected from ethylidene-norbornene, 1,4-hexadiene, dicyclopentadiene, 2-methyl-1,4-pentadiene, 1,4,9-decatriene, 1,5-cyclopentadiene, polybutene, polybutadiene and their derivatives.

Claim 7 (currently amended): The method according to claim ~~[[1]]~~ 19, wherein the fillers are coated or uncoated, pure or impure, precipitated or non-precipitated calcium carbonate CaCO_3 .

Claim 8 (previously presented): The composition according to claim 17, wherein the filler of mineral origin is calcium carbonate, the calcium carbonate having a typical specific gravity of 2.71 g/cm^3 .

Claim 9 (previously presented): The composition according to claim 17, wherein the filler of mineral origin is aluminium hydroxide – chemical formula $\text{Al}(\text{OH})_3$.

Claim 10 (previously presented): The composition according to claim 9, wherein the aluminium hydroxide has a typical specific gravity of 2.42 g/cm^3 .

Claim 11 (previously presented): The composition according to claim 17, wherein the filler of mineral origin is magnesium hydroxide – chemical formula $\text{Mg}(\text{OH})_2$.

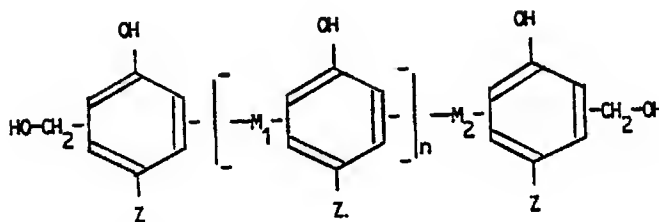
Claim 12 (previously presented): The composition according to claim 17, wherein the filler of mineral origin is Barytes – chemical formula BaSO_4 .

Claim 13 (previously presented): The composition according to claim 12, wherein the Barytes is a barium sulphate with different colours and has a typical specific gravity of 4.48 g/cm^3 .

Claim 14 (previously presented): The plasto-elastomeric composition of claim 9, wherein the aluminium hydroxide is present in quantities of up to 75%.

Claim 15 (currently amended): A method for producing a plasto-elastomeric composition, the method comprising the steps of:

providing a plasto-elastomeric composition having the elastomeric phase partially or fully cross-linked, wherein cross-linking is carried out by means of salicylic acid and an alkylphenol – formaldehyde non-halogenated phenolic resin of formula (I) :

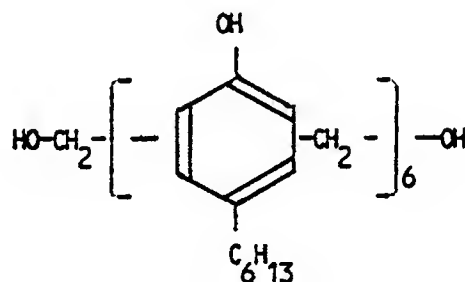


wherein M_1 and M_2 are $-CH_2-$ or $-CH_2-\overset{\overset{O}{\parallel}}{C}-CH_2-$ radicals, which may be the same or different, Z is an alkenyl, acrylic or alkyl radical containing between 4 and 16 carbon atoms, and n is an integer between 0 and 6; and

adding at least one of a Calcium carbonate (~~coated and uncoated~~), aluminium hydroxide, magnesium hydroxide, and Barytes filler to the composition, ~~directly in the compounding step with cross-linking or subsequently to the material that is already cross-linked, until the composition shows a total specific gravity of 2 kg/dm³ and has a predetermined hardness;~~

wherein the composition comprises 0.1 to 0.8 parts by weight of salicylic acid for each part by weight of resin, and wherein the fillers are in a quantity which is 90% or less by weight of the composition and wherein the filler is added until the composition reaches a total specific gravity of 2 kg/dm³ and a hardness ranging from ShA 40 to ShD 50.

Claim 16 (currently amended): A method according to claim ~~[[1]]~~ 19, characterised in that the phenolic resin is a phenol-formaldehyde type resol with the following formula (II):



(II)

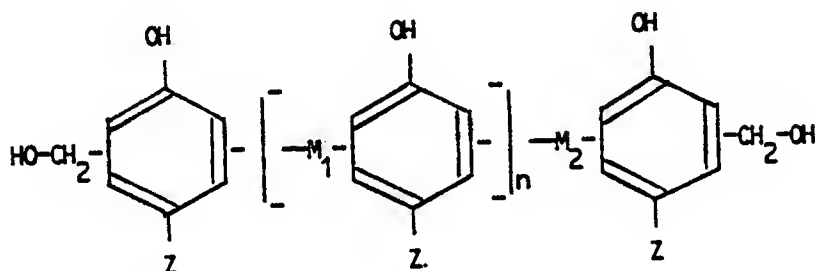
Claim 17 (currently amended): A plasto-elastomeric composition obtained by a method according to claim ~~[[1]]~~ 19.

Claim 18 (previously presented): The plasto-elastomeric composition of claim 11, wherein the magnesiumhydroxide is present in quantities of up to 75%.

Claim 19 (new): An EPDM terpolymer and polyolefin based plasto-elastomeric composition containing the cross-linked elastomeric phase wherein for cross-linking a formula (I) alkylphenol

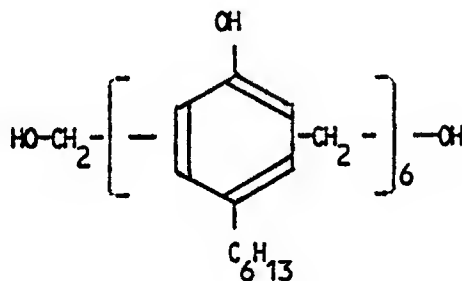
– formaldehyde non-halogenated phenolic resin, where M_1 and M_2 are $-\text{CH}_2-$ or $-\text{CH}_2-\text{C}-\text{CH}_2-$ radicals, Z is an alkylene, acrylic or alkyl radical containing between 4 and 16 carbon atoms, and n is an integer between 0 and 6:

(I)



or a formula (II) phenol – formaldehyde non-halogenated resole resin with the formula:

(II)



is used and in which, in addition to the non-halogenated phenolic resin, an aromatic carboxylic acid is used for cross-linking, wherein for each part by weight of resin between 0.1 and 0.8 parts by weight of salicylic acid are used, the composition fillers of mineral origin are added to the composition to achieve a total specific gravity of up to 2 kg/dm^3 and having hardnesses ranging from ShA 40 to ShD 50, the fillers of mineral origin being up to 90% by weight of the composition.